Diagnosing Diarrhea

Lab results and testing!

Most puppies do well in the nursing and weaning period if we get them eating and gaining weight and keep them growing. Their resistance is given to them by mom with colostrum antibodies and that should protect them until weaning. But what if it doesn't?

Puppy diarrhea has a cause and we need to get to the issue. We also need to understand what testing says and what it does not say. I want to get away from treating diarrhea as a casual visitor and start looking at it as a criminal who is costing you time and occasionally the lives of your puppies - we need to eliminate it!

Testing is important and when we lose puppies for no reason we ice them down and if possible take them to the state diagnostic lab. The investigating veterinarian will be able to give you more accurate results if he gets the body quickly, so don't wait too long. The next best thing is to have your veterinarian take samples of the feces, intestines or anything else affected inside the puppy and send it overnight to the lab.

What if we are not losing babies but see diarrhea:

PCR testing on feces is fast and rules in or out the common elements of the diarrhea. The PCR testing – done at State labs or IDEXX Laboratories picks up the genetic material of the organism and confirms its presence – you and your veterinarian have to sort out the relevance to your case. These tests look overwhelming so do not get excited until you interpret it with your veterinarian.

Common organisms tested for:

Cryptosporidium:

Tiny parasite often diagnosed with Giardia especially in catteries. Cryptosporidium diarrhea is intermittent and lots of it. Crypto is a common issue in livestock. This organism does not often cause issues for me in the kennel but does in the cattery. When present, Crypto always contributes to the diarrhea problem. In catteries and kennels with issues eliminating Crypto, Paromomycin orally twice daily for 5 days will eliminate it. Paromomycin is not absorbed well and stays in the gut so very safe at labeled dose. Controlling Giardia and Sulfa's have been successful in puppies but less so in kittens.

Giardia:

Diarrhea often intermittent with this organism and gives people fits trying to eliminate it. I assume it is there and when it is not we are happy with our prevention. If you don't prevent it, Giardia will show up! The diarrhea is usually accompanied by bacterial overgrowth and one reason Metronidazole is used. We get cultures of the bacteria but control of Giardia usually controls the bacteria as well. (See Giardia article for treatment information)

Clostridium perfringens toxin:

Clostridium toxin often kills babies and is known as overeating in livestock. Carbohydrates feed these bacteria and when present Clostridium can overgrow to huge numbers. When the puppy is put on antibiotics the bacteria is killed releasing large amounts of toxin killing the puppy. This organism is often present when you support a baby with high glucose supplements for hypoglycemia. You must read a Clostridium positive as likely caused by high calorie diet if used (Forti Cal/Nutri Cal/Dyne). Switching to high protein/fat supplements with long term feeding (Royal Canin Recovery diet or all meat baby food) to avoid Clostridium issues.

Salmonella species:

Salmonella is bad news for nursing puppies and kills quickly. When present we always look for the contamination or the source. Salmonella diarrhea often has blood in it and is accompanied by quick weight loss. Puppies can look thin in 24 hours. Vomiting usually accompanies this disease and often is mistaken for Parvo virus. A source of infection is often feeding poultry products to the moms or the puppies. The cure is to not cook for your moms or puppies and never feed raw meat. A less common source is water contaminated by rodents.

Parvo virus:

Parvo virus frustrates breeders as most samples come back positive and most are not the cause of death. The reason is we vaccinate with a modified live virus vaccine and the test picks it up. Be sure to inform the lab when puppy being examined was vaccinated as the PCR test will pick up the genetic material from the vaccine. You will find Parvo. Your veterinarian can help you decide if it is a player. If you have not vaccinated the puppy and Parvo is diagnosed – Parvo is a player.

Distemper:

Distemper positive can also be triggered by vaccine as above. Distemper often has a respiratory component and can look like kennel cough with diarrhea. That helps sort out the significance of the test when vaccination was given.

Corona Virus:

Corona virus can look exactly like Parvo or be quite mild. The difference is corona puppies drink and usually keep fluids down – Parvo puppies won't drink. Corona virus accompanied by any of these pathogens will increase the severity and will kill the puppy. When present it is significant. Vaccinate mom to take corona out of the equation with colostrum antibodies, treat the next issue present.

Campylobacter jejuni/coli:

Campylobacter species have caused much loss in kennels the past 3 years. Campylobacter diarrhea has typically been at weaning to 9 weeks but recently has affected end of nursing puppies! Everything seems to help kennels when treating Campy but nothing cures. Diarrhea is mild to severe in the same litter and carrier animals keep the issue in the kennel. When we diagnose it we treat by directing the effort at eliminating puppy loss first then getting it out of the breeding stock so carriers are eliminated. Choosing the correct antibiotic is critical here as most do not touch Campylobacter. Carrier moms give this bug to puppies when she is stressed during birth and nursing. Campylobacter causes few issues in adults.